

**CITHERONIA REGALIS LARVAE
(LEPIDOPTERA: CITHERONIIDAE)
FEEDING ON MISTLETOE IN MISSISSIPPI¹**

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On August 31, 1978 we removed part of a heavy infestation of the parasitic epiphyte American mistletoe, *Phoradendron flavescens*. (Pursh.) Nutt., from the branches of a large blackjack oak, *Quercus marilandica* Muenchh., located in Leake County, Mississippi, 2 miles north of Ludlow. Three "hickory horned-devils" (larvae of *Citheronia regalis* Fabr.) were feeding on three separate mistletoe plants. No larvae were seen on the oak leaves, but a search of the entire tree was not possible.

Caterpillars and mistletoe were removed for observation. The larvae fed voraciously on the thick mistletoe leaves, defoliating the plants and leaving only the tough, woody stems. Feeding continued both day and night and several cups of large feces were eliminated by the larvae.

On September 4 the larvae and two 17 x 12 x 7 in. grocery bags packed with mistletoe plants were transported to Bowling Green, Ohio, where feeding continued as before. Nearly all of this mistletoe was defoliated by the caterpillars.

On September 8 the larvae changed from green to blue-green in color, stopped feeding, exhibited active searching behavior and left the mistletoe. Each larvae was introduced into a gallon jar half filled with moist sandy soil. The larvae burrowed into the sand, leaving no obvious openings at the surface.

One jar was kept over winter in a cool basement (10°C.). It was brought to room temperature (20°C.) in early summer, 1979, and a royal walnut moth emerged July 31, 1979 in perfect condition. This moth flew normally before it was killed and mounted. The wingspread was 11.5 cm. No adults emerged from the other jars which were kept at room temperature.

To our knowledge, this is the first published report of American mistletoe as a host plant for *Citheronia regalis*. *Phoradendron flavescens* is a troublesome parasite of several tree species, especially oaks. As 3 last-stage larvae of *C. regalis* were capable of eating the amounts of mistletoe stated above, each larva is capable of defoliating several mistletoe plants. If mistletoe should be a fairly common food for *C. regalis* larvae, this species may be of some importance in the biological control of this plant.

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